

**Claims**

1. A method for adjusting the vagal nerve stimulation (VNS) signal induced by a stimulus generator implanted in a patient in need of vagal nerve stimulation comprising the steps of
  - a) monitoring at least one parameter selected from respiratory parameters and physiological acid-base parameters which correlate to the VNS intensity, and
  - b) regulating the stimulation intensity in response to said at least one parameter.
2. A method as claimed in claim 1 wherein said at least one respiratory parameter is selected from a group consisting of end-tidal carbon dioxide (EtCO<sub>2</sub>), respiratory rate (RR), respiratory frequency (RF), respiration amplitude (RA), and airflow.
3. A method as claimed in claim 1 wherein said at least one physiological acid-base parameter is selected from a group consisting of CO<sub>2</sub> content and pH.
4. A method as claimed in claim 2 wherein said at least one respiratory parameter is end-tidal carbon dioxide (EtCO<sub>2</sub>).
5. A method as claimed in claim 2 wherein said at least one respiratory parameter is respiratory frequency (RF).
6. A method as claimed in claim 1 wherein monitoring is performed by a capnograph.
7. A method for adjusting the vagal nerve stimulation (VNS) signal induced by a stimulus generator implanted in a patient in need of vagal nerve stimulation comprising the steps of
  - a) monitoring the level of end-tidal carbon dioxide (EtCO<sub>2</sub>) and respiration frequency which correlate to the VNS intensity, and

b) regulating the stimulation intensity in response to said respiratory parameter.

8. A method for controlling the effectiveness of vagal nerve stimulation (VNS) induced by a stimulus generator implanted in a patient in need of vagal nerve stimulation comprising the steps of

- a) monitoring at least one parameter selected from respiratory parameters and physiological acid-base parameters which correlate to the VNS intensity, and
- b) regulating the stimulation intensity in response to said at least one parameter.

9. A method as claimed in claim 8 wherein said at least one respiratory parameter is selected from a group consisting of end-tidal carbon dioxide ( $\text{EtCO}_2$ ), respiratory rate (RR), respiratory frequency (RF), respiration amplitude (RA), and airflow.

10. A method as claimed in claim 8 wherein said at least one physiological acid-base parameter is selected from a group consisting of  $\text{CO}_2$  content and pH.

11. A method as claimed in claim 9 wherein said at least one respiratory parameter is end-tidal carbon dioxide ( $\text{EtCO}_2$ ),

12. A method as claimed in claim 9 wherein said at least one respiratory parameter is respiratory frequency (RF).

13. A method as claimed in claim 8 wherein monitoring is performed by a capnograph.